

We Claim:

- 1) A process for delivering a polynucleotide into a cell of a mammal to inhibit protein expression, comprising:
 - a) making a polynucleotide consisting of a sequence that is complementary to a nucleic acid sequence to be expressed in the mammal;
 - b) inserting the polynucleotide into a vessel in the mammal;
 - c) delivering the polynucleotide to the cell wherein the nucleic acid expression is inhibited.
- 2) The process of claim 1 wherein vessel permeability is increased.
- 3) The process of claim 2 wherein increasing the permeability of the vessel consists of increasing pressure against vessel walls.
- 4) The process of claim 3 wherein increasing the pressure consists of increasing a volume of fluid within the vessel.
- 5) The process of claim 4 wherein increasing the volume consists of inserting the polynucleotide in solution into the vessel.
- 6) The process of claim 1 wherein the vessel consists of a tail vein.
- 7) The process of claim 1 wherein the vessel consists of a bile duct.
- 8) The process of claim 1 wherein the parenchymal cell is a cell selected from the group consisting of liver cells, spleen cells, heart cells, kidney cells and lung cells.
- 9) The process of claim 1 wherein the polynucleotide consists of RNA.
- 10) The process of claim 9 wherein the RNA consists of dsRNA.

11) The process of claim 10 wherein the dsRNA consists of siRNA.

12) The process of claim 11 wherein the siRNA is injected into the mammal's vessel.

13) The process of claim 4 wherein increasing the pressure consists of increasing a volume within the vessel.

14) The process of claim 13 wherein the pressure is sufficient to increase organ volume.

15) The process of claim 13 wherein the pressure is sufficient to increase extravascular volume.

16) The process of claim 1 wherein the vessel consists of a liver vessel.

FIG. 4